- Mann, W. A. (1993). Landscape architecture: An illustrated history in timelines, site plans, and bibliography. New York: John Wiley and Sons.
- Mozingo, L. (1994, February). The homeless in urban parks: Is exclusion the solution? *Landscape Architecture*, 112.
- Mozingo, L. (1995, February). Public space in the balance. *Landscape Architecture*, 42-47.
- Owens, P. E. (1994, October). Hang-outs, look-outs, and wipe-outs. *Landscape Architecture*, 84.
- Owens-Viani, L. (2002, April). Building on 'street energy': Landscape architect Walter Hood challenges conventional ideas about street, parks, and people. *Landscape Architecture*, 92-94.
- Pastier, J. (1994, May). New open space in L.A. *Landscape Architecture*, 42-43.
- Shannon, K. (2001). Vietnam's hybrid urban landscapes: The dream of western architects/urbanists? Coping with Informality and Illegality in Human Settlements in Developing Cities; ESF/N-AERUS Annual Workshop, Brussels, Belgium.
- Walzer, M. (1995). Pleasures and costs of urbanity. In P. Kasinitz (Ed.), *Metropolis: Center and symbol of our times*. New York: New York University Press, 320-330.

# APPENDIX F EDUCATIONAL ACTIVITIES AND OPPORTUNITIES

by Jon Loxley

Celebrating nature in the middle of the city through education and active involvement are two ways in which the design team of the RiverLink study would like to encourage public participation in the planning, development, and stewardship of community open spaces.

The educational value of having the community involved in the stewardship of Long Beach open space is a commitment of the Long Beach Department of Parks, Recreation and Marine. The department's programs are designed to enhance the understanding of the local environment.

## Adopt-A-Wetland

The Adopt-a-Wetland program is similar to the Adopt-a-Beach program. A wetland, however, is an extremely delicate ecosystem, where the relationship between plants and animals are extremely fragile and must be protected. For this reason, volunteers are asked to participate in a one time training program that will prepare them for the sensitive area before they are given assignments.

#### **Dedicate-A-Tree**

Long Beach Parks, Recreation, and Marine offers a unique and thoughtful way to recognize individuals and/or special occasions by having a tree planted in a city park.

# **Adopt-A-Park Program**

The Adopt-a-Park program allows individuals or groups to adopt a park in the City of Long Beach. Through such adoption, responsibility is assumed for one year of litter removal, beautification, major or minor improvements, or any combination of the above.

The RiverLink study supports the department's current efforts and includes the following examples of environmental education activities as specific ways the youth of the westside of Long Beach can be active and engaged in their open spaces.

# Heritage Trees: Growing a Greener Long Beach

The urban forest applications proposed by the RiverLink study will be in need of a source of tree stock. The youth of Long Beach could develop nursery space within the schoolyards to propagate street tree seedlings. The recommendation of the design team is to collect seed form local heritage trees for the stock. This encourages the use of trees from local sources and teaches youth the importance of a healthy urban forest.

# **Living with Wildlife in the Urban Setting: Analyzing Urban Habitats**

(Adapted from the Illinois Department of Natural Resources, 2003)

# Purpose

In this activity students will survey, compare, and evaluate different urban sites as habitats for people, plants, and wildlife. They learn that human and wildlife habitats must fill certain similar needs. This study leads the students to a clearer understanding and expression of their feelings about plants and animals in the urban context.

# Learning Objectives

After completing this activity, students will be able to:

■ Identify two ways in which urbanization harms habitats

130

- Identify two ways in which urbanization can improve habitat for wildlife
- Identify three kinds of wild plants and animals that are able to thrive in the students' urban area, and explain one way in which urban conditions favor these species

## Materials Needed

- Field guides (optional)
- Pictures of an underdeveloped area in your region; if possible, historical pictures taken in your urban area before much development took place
- Thermometers (best as a sunny day activity)
- Student data sheet
- Pencil
- Clipboard or stiff cardboard with paper clip or binder clip
- Watch or timer

## **Directions**

Display pictures of undeveloped areas on the bulletin board. Introduce the concept of habitat. Ask the students to define the word "habitat" (the place where a plant or animal lives and finds the conditions it needs to survive, such as food, water, shelter). What is a student's habitat?

In creating urban habitats, people have changed previously existing habitats. Ask the students to compare the pictures of underdeveloped areas with their urban habitat. List some of the factors that have changed and some that have remained the same. Include biological factors (e.g., plants are removed permanently when large areas are paved) and physical factors (e.g., water is less available when rain is carried off in sewers). Involve the students in selecting two sites for study, one natural site and one site that is highly developed.

Take the students out to the sites, break into groups, and distribute materials. Take extra data sheets if you want the students to study and compare more than two sites.

Using the data sheets as guides, have students survey the habitats they are visiting. They should name or draw plants and animals they see, or use field guides to check identifications and other facts.

When the data sheets are completed, gather the students to compile profiles of the animals and plants that could live in the habitats they sur-

veyed. They should share their own data with the class (or with their small group) to determine the following information: Where can the animal find its food? Are there natural food sources? Must the animal depend on human-provided supplies (including garbage)? Could an animal that was disturbed by noise live here? Is there a variety of food to eat and places to hide? Consider all the factors on the data sheet.

How many and what kinds of animals and plants were seen in the different habitats? How do living conditions compare in the habitats? Following this survey, encourage students to begin keeping wildlife logs.

#### Follow-Up

Some of the animals that survive best in the environment are not those that people enjoy having around. Animals like rats, cockroaches, pigeons, starlings, etc., are considered pests by many people. List urban habitat conditions that favor these "pest" animal populations (e.g., availability of food, cover, and nesting space). How might habitats be changed to control them (e.g., clean up garbage, design buildings with fewer nesting opportunities)? What conditions favor animals or plants that the students find desirable (e.g., nut-bearing trees encourage birds and provide protection from dogs and cats)?

# Living with Wildlife in the Urban Setting: Improving Urban Habitat

(Adapted from the Illinois Department of Natural Resources, 2003)

## Purpose

In this activity students learn how people can take action to encourage wildlife in their cities. Students investigate specific techniques used to improve urban wildlife habitats. They have a chance to apply these techniques using a habitat improvement plan they develop for a small local park, lot, or yard.

## Learning Objectives

- Identify three kinds of wild plants or animals desired in the city and discuss ways to increase the populations of those species
- State three ways wildlife numbers can be increased or decreased in the city
- Draw a plan (map) to improve an area for wildlife by increasing diversity in the habitat

#### Materials for Project

- Books with pictures of wildlife and plants
- Books with pamphlets concerning wildlife habitats
- Colored pencils
- Data sheets

#### **Directions**

Contact, or let the students contact, one or more individuals or local groups involved with encouraging city plant and animal populations (e.g., garden clubs, environmental associations, Audobon Society, parks department, and others).

Invite representatives of these groups in to discuss planning for urban wildlife. What does the organization do to help wildlife? Ask the speakers to bring pictures or slides.

Help the group choose a site to develop a management plan. The area need not be large; areas ranging from the size of a window box to the size of a city park can be managed for wildlife. Part of a schoolyard, park, vacant lot, right-of-way, or cemetery can be used. Try to choose an area that will not be disturbed when the students implement their plan. Be sure to obtain any necessary permission from the owner or proper authority (principle, neighborhood association, cemetery manager, etc.) and write a thank-you note after the field trip.

Divide students into small groups and instruct them to draw maps of the area noting its good and bad points as wildlife habitat.

Encourage the students to look through the books and pamphlets you have available and to develop a list of species that can live in the habitat and species they would like to see more often. Discuss with the students the positive and negative aspects of increasing these species. Using their maps, they should then design a management plant for these species. This is surprisingly easy to do, and there is a lot of help available. The plans need not be complex. They should include ideas for reducing pollution on the site if possible and for increasing diversity of wildlife habitat by providing self-sustaining sources of food, water, and cover.

Habitat improvements can include: allowing a grassy area to "go wild" (the taller grass will provide food and cover; check city ordinances for guidelines on permitted height of plants), providing nest boxes for squirrels, and planting shrubs for food and cover or as a buffer between a busy area and your "refuge."

Natural food sources (vegetation) are recommended over artificial feeders because they require less maintenance.

Discuss undesirable plant and animal species in the management areas

#### Reference

Illinois Department of Natural Resources Retrieved April 22, 2003 from http:// dnr.state.il.us/lands/education

# APPENDIX G NATIVE AND ADAPTED PLANT LIST

The following list provides plant materials suitable for general use along the Long Beach reach of the Los Angeles River. This list also applies to plantings at RiverLink Connections, along Pathways, and within Destinations. The plants are categorized based on appropriate habitat type as classified in the Urban Nature portion of *The Long Beach RiverLink: Connecting City to River* document. This is not a comprehensive list, however, it does reflect plants appropriate for use in Long Beach based on climate, historical occurrence, and habitat potential.

# **General Communities**

# Coastal Sage Scrub

Chamise

Adenostostoma fasciculatum

Coastal Sagebrush *Artemesia californica* 

Coyote Bush *Baccharis pilularis* 

Monkey flower *Diplacus longiflorus* 

Chaulk Dudleya Dudleya pulverulenta

Coast Brittle Bush *Encelia californica* 

California Fuchsia Epilobium canum

Wild Buckwheat Eriogonum fasciculatum

Golden Yarrow Eriophyllum confertiflorum